

CLAIMS

1 1. A networked computer system comprising:

2 (A) a first computer system comprising:

3 a first processor;

4 a first memory coupled to the first processor;

5 a first data structure residing in the first memory;

6 a first application residing in the first memory;

7 a trigger mechanism residing in the first memory and executed by the first

8 processor that detects a change to the first data structure and, in response, invokes

9 the first application;

10 a software tool residing in the memory that is invoked by the first

11 application to retrieve information from the data structure and to format the

12 information into a defined format;

13 (B) a secure communication mechanism that provides encoded messages between

14 the first computer system and a second computer system, the secure communication

15 mechanism transmitting the formatted information from the first computer system to the

16 second computer system;

17 (C) the second computer system comprising:

18 a second processor;

19 a second memory coupled to the second processor;

20 a second data structure residing in the memory;

21 a second application residing in the second memory, the second

22 application receiving the formatted information from the secure communication

23 mechanism;

(claim 1 continued)

24 a parser residing in the second memory, the parser parsing the formatted
25 information and generating therefrom second information, the parser adding the
26 second information to the second data structure;

27 the second application processing the second information in the second
28 data structure, taking action based on the second information, and generating a
29 response to the first computer system via the secure communication mechanism.

1 2. The networked computer system of claim 1 wherein the defined format comprises
2 an XML document.

1 3. The networked computer system of claim 1 wherein the action taken depends on
2 the second information and business logic for the second computer system.

1 4. The networked computer system of claim 1 further comprising a front-end
2 application coupled to the first computer system that allows a user to cause a change in
3 the first data structure.

1 5. A networked computer system comprising:

2 (A) a first computer system comprising:

3 a first processor;

4 a first memory coupled to the first processor;

5 a first data structure residing in the first memory;

6 a first application residing in the first memory;

7 a trigger mechanism residing in the first memory and executed by the first

8 processor that detects a change to the first data structure and, in response, invokes

9 the first application;

10 a software tool residing in the memory that is invoked by the first

11 application to retrieve information from the data structure and to format the

12 information into an eXtensible Markup Language (XML) document according to

13 information contained in a mapping file that defines the structure and content of

14 the XML document;

15 a response mechanism residing in the first memory and executed by the

16 first processor that processes at least one response from a second computer

17 system;

18 (B) a front-end application coupled to the first computer system that allows a user

19 to cause a change in the first data structure;

20 (C) a virtual private network that provides encoded messages between the first

21 computer system and the second computer system, the virtual private network

22 transmitting the XML document from the first computer system to the second computer

23 system;

24 (D) the second computer system comprising:

25 a second processor;

26 a second memory coupled to the second processor;

27 a second data structure residing in the memory;

(claim 5 continued)

28 a second application residing in the second memory, the second
29 application receiving the XML document via the virtual private network;
30 an XML parser residing in the second memory, the XML parser parsing
31 the formatted information and generating therefrom second information;
32 the second application performing the steps of:
33 adding the second information to the second data structure;
34 processing the second information in the second data structure to
35 determine whether the second information satisfies at least one automatic
36 approval criterion;
37 if the second information does not satisfy the at least one automatic
38 approval criterion, notifying a human agent that manual processing is
39 required;
40 formatting a response XML document indicating status; and
41 transmitting the response XML document to the response
42 mechanism via the virtual private network.

1 6. A method for communicating between a first computer system and a second
2 computer system, the method comprising the steps of:

3 (1) detecting a change to a first data structure in the first computer system;
4 (2) retrieving first information from the first data structure;
5 (3) formatting the first information into a defined format;
6 (4) transmitting the formatted first information from the first computer system to
7 the second computer system via a secure communication mechanism that provides
8 encoded messages between the first computer system and the second computer system;
9 (5) parsing the formatted first information and generating therefrom second
10 information;

11 (6) acting upon the second information according to business logic residing in the
12 second computer system; and

13 (7) generating a response to the first computer system via the secure
14 communication mechanism that indicates status of the processing of the second
15 information in the second computer system.

1 7. The method of claim 6 wherein step (3) comprises the step of formatting the first
2 information into an XML document.

1 8. The method of claim 6 wherein steps (2) and (3) comprise using an XML
2 Lightweight Extractor (XLE) to extract the first information from the first data structure
3 and to format the first information into an XML document that satisfies a mapping file
4 that defines the structure and content of the XML document.

1 9. The method of claim 6 wherein the business logic includes at least one criterion
2 for automatically processing the formatted first information and at least one criterion for
3 manually processing the formatted first information.

1 10. The method of claim 6 further comprising the step of:
2 (8) the first computer system generating feedback to a user that caused the change
3 to the first data structure in step (1).

1 11. The method of claim 10 wherein step (8) comprises the step of sending a message
2 to the user via the front-end application.

1 12. The method of claim 10 wherein step (8) comprises the step of sending an e-mail
2 message to the user.

1 13. A method for communicating between a first computer system and a second
2 computer system, the method comprising the steps of:
3 (1) a user using a front-end application to cause a change to a first data structure
4 in the first computer system;
5 (2) detecting the change to the first data structure;
6 (3) using a XML Lightweight Extractor (XLE) to extract the first information
7 from the first data structure and to format the first information into an XML document
8 that satisfies a mapping file that defines the structure and content of the XML document;
9 (4) transmitting the XML document from the first computer system to the second
10 computer system via a virtual private network that provides encoded messages between
11 the first computer system and the second computer system;
12 (5) parsing the XML document and generating therefrom second information;
13 (6) processing the second information to determine whether the second
14 information satisfies at least one automatic approval criterion;
15 (7) if the second information does not satisfy the at least one automatic approval
16 criterion, notifying a human agent that manual processing is required;
17 (8) formatting a response XML document indicating status; and
18 (9) transmitting the response XML document to the first computer system via the
19 virtual private network.

1 14. The method of claim 13 further comprising the step of:
2 (10) the first computer system generating feedback to the user.

1 15. The method of claim 14 wherein step (10) comprises the step of sending a
2 message to the user via the front-end application.

1 16. The method of claim 14 wherein step (10) comprises the step of sending an e-mail
2 message to the user.

1 17. A method for doing business comprising the steps of:
2 monitoring for changes a first data structure in a first computer system;
3 detecting a change to the first data structure;
4 in response to the detected change in the first data structure, extracting first
5 information from the first data structure;
6 formatting the first information;
7 sending the formatted first information to the second computer system for
8 processing via a secure communication mechanism that provides encoded messages
9 between the first computer system and the second computer system;
10 parsing the formatted first information;
11 acting upon the parsed information according to business logic residing in the
12 second computer system; and
13 generating a response to the first computer system that indicates status of the
14 processing of the data.

1 18. A method for an insurance company that has a first computer system to do business
2 with an insurance underwriter that has a second computer system, the method comprising
3 the steps of:
4 a trigger program executing on the first computer system monitoring a first
5 database in a first computer system for changes;
6 the trigger program detecting a change to the first database, the change
7 corresponding to a new application for an insurance policy;
8 in response to the detected change in the first database, invoking a first software
9 application on the first computer system to extract first information from the first
10 database, the first information corresponding to information in the new application for an
11 insurance policy;
12 the first software application formatting the first information into an XML
13 document according to information contained in a mapping file that defines the structure
14 and content of the XML document;
15 the first software application sending the XML document to a second application
16 executing on the second computer system via a virtual private network that provides
17 encoded messages between the first computer system and the second computer system;
18 the second software application parsing the XML document;
19 the second software application acting upon information in the parsed XML
20 document according to insurance underwriting logic residing in the second computer
21 system; and
22 the second software application generating a response XML document and
23 sending the response XML document to the first computer system that indicates whether
24 the new application for the insurance policy is approved.

1 19. The method for doing business of claim 18 wherein the insurance underwriting
2 logic includes at least one automatic approval criterion, wherein the second software
3 application approves the new application for an insurance policy if the information in the
4 parsed XML document satisfies the at least one automatic approval criterion.
